

WHAT IS CLAIMED IS:

1. A control system for an AC motor having a predetermined horsepower rating, comprising:

a plurality of integrated AC motor control systems each of which having a horsepower rating less than the AC motor to be controlled, each of said integrated systems comprising an input rectifier section, a DC bus section an output inverter section and a controller section;

a common, 3 phase AC input communicating with the rectifier section of each integrated control system;

a common DC bus communicating with the DC bus section of each integrated control system;

a common, 3 phase, variable frequency, pulse-width-modulated output communicating with the output inverter section of each integrated control system; and

a parallel controller interfaced with each integrated control system controller.

2. A method of controlling an AC motor of predetermined horsepower, comprising the steps of:

providing a plurality of integrated AC motor control systems each having a horsepower rating less than the AC motor to be controlled and each of said integrated control systems comprising an input rectifier section, a DC bus section an output inverter section and a controller section;

applying a common, 3 phase AC input to the rectifier section of each integrated control system;

supplying a common DC bus for the DC bus section of each integrated control system;

generating a common, 3 phase, variable frequency, pulse-width-modulated output from the output inverter sections of each integrated control system; and

controlling the AC motor with a parallel controller interfaced with each integrated control system controller.